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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/248,768	02/12/1999	DIKRAN S. BABIKIAN	SVG-771	9181

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EXAMINER	
FORD, JOHN K	

ART UNIT	PAPER NUMBER
3753	19

DATE MAILED: 04/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Cl0 19

Office Action Summary	Application No. 09/248,768	Applicant(s) Babikian et al.
	Examiner FORD	Art Unit 3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 1/9/02 + 6/18/03 + 9/22/03

2a)☑ This action is FINAL. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☑ Claim(s) 1-12, 24-26 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☑ Claim(s) 1-12, 24-26 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15)☑ Notice of References Cited (PTO-892)

16)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17)☑ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13+16

18)☐ Interview Summary (PTO-413) Paper No(s). _____

19)☐ Notice of Informal Patent Application (PTO-152)

20)☐ Other:

The latest communication from Applicant in the Examiner's file is a new power of attorney filed September 22, 2003 (Paper No.17) and a notice in regard to that change mailed from by PTO on October 7, 2003 (Paper No.18). An amendment was received from Applicant January 9, 2002 (Paper No. 15) as well as a prior art citation on June 18, 2003 (Paper No. 16).

Any inconvenience caused by the delay in responding to Paper No. 15 is regretted. An action follows addressing the substance of Paper No. 15. The elected species remains that of Figure 1 and Group I as described in Paper No. 5.

The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

Improper incorporation by reference occurs on page 1, page 5, lines 11-12 (Mills & Irwin), page 5, lines 17-19 (McCabe & Smith and Perry's) page 12, lines 20-222 (Weber), page 12, lines 26-29 (Irvine & Liley) and page 14, lines 4-6 (Horowitz & Hill).

If any these are <u>essential</u> incorporations by reference (as defined in MPEP 608.01(p)) then applicants are required to follow the procedure set forth in the MPEP for

actually entering the essential material into the application by appropriate amendment and declaration. If any of these are non-essential incorporations then they may remain as is, with the caviat that applicants cannot later on rely on information contained in these publications to complete the disclosure. Please indicate, in response to this action, which are essential and which are non-essential incorporations by reference.

This issue will not be deferred any longer. It must be addressed in applicant's forthcoming response.

Applicant's comments in Paper No.I5 have been given careful consideration. They are addressed, to the extent applicable to the amended claims in Paper No. 15, in the rejections set forth below.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no antecedent basis in claim 7 for a " filter".

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 6-8, 12, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0,766,050 in view of JP 59-84617.

EP '050 discloses a contactor 10 having spray nozzles 64 for fluid, inlet 53 and outlet 50 for air, packing 65, a heater 68 and an outlet for liquid attached to pump 18. Water in the tower 10 is treated by a chiller as disclosed in col. 9, lines 1-7 and claim 13, penultimate paragraph. Temperatures sensors 27 and 29 perform the same functions as the temperature sensors claimed, by applicant, before and after the heater. Filters are shown at 40.

No actual set- point device is disclosed which accepts settings for relative humidity and temperature and computes the required temperatures for the controller(s) connected to sensors 27 and 28. It is clear, however, that EP '050 contemplates controlling the temperatures at 27 and 29 to attain predetermined temperature and humidity values as described in cols. 8 and 9 under Examples 1-2.

JP'617 teaches computing a dew-point temperature (i.e. a saturation temperature such as measured by sensors 27 in EP '050) from a set–point temperature and a set-point relative humidity. To have used a suitably programmed computer to control the chiller of EP '050 and reheated 68 of EP'050 responsive to temperature 27 and 29 (as already disclosed in EP'050) would have been obvious and to have used the programmer algorithm of JP '617 to permit the user to conveniently input the desired dry bulb temperature for comparison to sensor 29 and the desired dew-point temperature for comparison to sensor 27 from set-points for RH and temperature would have been obvious from JP '617.

Claims 1, 2, 6-8, 12, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 1, 2, 6-8, 12, and 24-26 above, and further in view of JP 8-5131.

JP'131 teaches, in yet greater detail, how to take dry bulb temperature and relative humidity set points (input at the right side of box 15) and process a dew-point (saturation) temperature "tmp" to be compared to a saturation temperature "tm" and used by a controller 18. The same two inputs (to the right side of box 15) are also used to control heater 5 based on temperature "ta" being compared with "tpo" (the dry bulb temperature set point).

To have used this type of controller in the prior art to control the two systems (connected to sensors 27 and 29 in EP '050) would have been obvious to permit convenient user input values.

Claims 1, 2, 6-8, 12 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of prior art as applied to claims 1, 2, 6-8, 12 and 24-26 are above, and further in view of Curtis et al.

Curtis shows a chiller heat exchanger 26 which would have been obvious to use in EP '050 in the pump line connected between pump 18 and spray nozzles 27 to perform the cooling function described in col. 9, lines 5-9 of EP '050. Such a position would advantageously aid in servicing the unit.

Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claims 1 and 7 are above, and further in view of Powers.

Powers shows a liquid distributor (see Figure 2) in which the reactive force of the liquid rotates the distributor. To have added/substituted such a distributor to the prior art to improve liquid distribution to the solid media and thereby improve the degree of saturation would have been obvious.

Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claims 1 and 7 are above, and further in view of Asakawa (5,086,829) or Litzberg (4,951,738).

Asakawa & Litzberg each two electronic level sensors to maintain liquid levels between to set limits. To have used such conventional electronic level controllers in the prior art to maintain the water in the sump at the required level for operation would have been obvious.

Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claims 1 and 7 are above, and further in view of Weibert, Jr. (2828761).

Weibert discloses a system, which prevents scale build-up in a direct contact cooling system (such as disclosed in prior art) by periodically draining the lime-concentrated liquid and refilling the sump with fresh water.

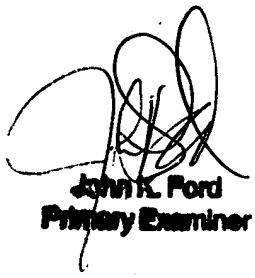
To have used the system of Weibert to periodically renew the water in the sumps in any of the prior art systems to keep them operating properly would have been obvious to one of ordinary skill.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to John Ford at telephone number 703-308-2636.



Ford/DL

April 8, 2004